Jordan Nutrient Rules: Integrated TAG#1

Ellie Rauh NC DWR
with speakers from
Jordan One Water Coalition
Piedmont Conservation Council

July 2024

Welcome to the Integrated Technical Advisory Group (TAG) to support the Jordan Rule Readoption Process.

Introductions: please state name, affiliation, a favorite place in NC.

TAG Purpose and Today's Agenda

- The Integrated TAG was proposed by JLOW in addition to the DWR Nutrient Trading TAG. We are focusing on cross sector collaboration to support the Jordan Rule Readoption Process.

10:00-10:40am	Introductions and overview of TAG purpose and timeline	Ellie Rauh, DWR
	JLOW Goals, Principles, and Actions	Nancy Daly, Wake County
	Piedmont Conservation Projects	Grace Messinger, PCC
10:40am-Noon	Benefits and Monitoring of Integrated Practices with Group Discussion on Examples for Nutrient Reduction	Ellie Rauh, DWR
	Urban and Rural Interactions and Investments with Group Discussion on Actions to Facilitate Collaboration	Ellie Rauh, DWR
	Closing	Ellie Rauh, DWR

‘Informal’ Stakeholder Engagement

WQC Approval to Proceed (expected multiple reviews)

“Formal” Rulemaking (steps can require > 1 pass)

2024

- DWR stakeholder engagement.
- DWR rule drafts and internal review.
- Stakeholder groups review rule language.

2025

- Jan - Begin fiscal analysis.
- May-Jun – OSBM fiscal approval
- **July or Sept WQC**: Action item
  - Provide approved fiscal analysis
  - Request to proceed w/rules
- **Sept or Nov WQC**: 2nd attempt if needed

(filing dates = 1 mo prior to meetings)

2026-2027

- EMC approval to proceed
- 60-day public comment period
- Hearing Officers deliberate
- Develop Hearing Officers report
- EMC adopts rules
- Rules Review Commission approves

Modeled Reductions to Meet Chl-a Standard

- Overall, new model is calling for significant additional nutrient loading reductions to meet chl-a standard.

Current Rule – Lake Reduction Goals*		
	N	P
Upper NH	35%	5%
Lower NH	0%	0%
Haw	8%	5%

* relative to 1997-2001 baseline period

New Lake Model – Further Lake Reduction Needs*		
	N	P
Upper NH	**60-70%**	0-50%
Middle NH	**30-60%**	**0-70%**
Haw	**0-70%**	**0-40%**

* relative to 2014-2016 model period

- Model is available for external review.

EMC responsibility to manage nutrient pollution

- EMC has obligations to issue regulations per the Clean Water Act and State statutes including SL 1997-458.

- Clean Water Act:
  - Water quality criteria – Chlorophyll-a criterion
  - Section 303(d) list of impaired waters and 305(b) water quality reports – Integrated Report (IR)
  - TMDL or Alternative: A TMDL is the calculation of the maximum amount of a pollutant allowed to enter a waterbody so that the waterbody will meet and continue to meet water quality standards for that particular pollutant

- **1978 – Chlorophyll-a criterion: 40ug/L (10/90)**
- **Nutrient Rules are carrying out requirements of the Jordan TMDL**

JLOW Presentation

Piedmont Conservation Council Presentation

Jordan Nutrient Rules and Watershed Goals

As JLOW partners, NPSB is engaging in a discussion today so we have a better understanding of effective cross sector specific actions, outcomes, and metrics. Id like us to leave with a better understanding of how stakeholders' goals for watershed management relate to the Jordan Nutrient Rules.

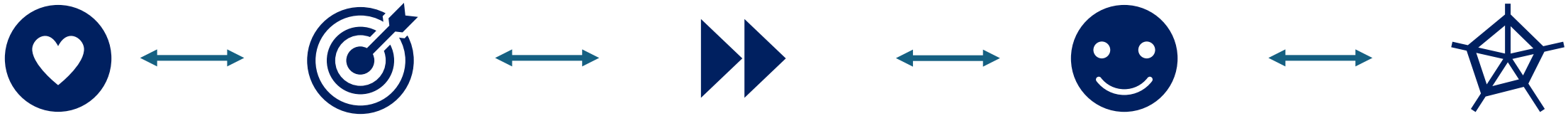
Some stakeholders have brought attention to:

- **Issues with lbs. of nutrients tracking.**
- **Issues with current list of approved nutrient practices.**

- What do you think DWR should track to gauge effectiveness of a nutrient reduction strategy?

- What practices would you like to see implemented in the watershed?
  - Are these practices specific to nutrient strategies and/or do they have co-benefits?

Benefits and Monitoring of Integrated Practices



Values

Clean Water

Goals

Sustainable Nutrient Management –

Watershed specific nutrient rules ‘strategy’ for sectors

Watershed voluntary nutrient reduction programs

Actions

SCMs implemented for ND with a SNAP tool

Compliance targets set for Ag and NLEW tool

WWTP technology upgrades for N&P

Desired Outcomes

Reduced soil P

Reduced GW Nitrates

Increased habitat health

Reduced SW TP and TN

Monitoring Metric

Chl-a in the Lake

lbs N&P delivered to SW

Soluble N to edge of field (NLEW)

Investments into N&P practices

Buffer protected

Identified Goals and CoBenefits – Pittsboro Workshop 2019

1. Improved physical world

Water quality
Air quality
Vegetation
Habitats
Less problem algae
Biodiversity
Reduced pollution
Groundwater recharge
Source water protection
Mature riparian
Less CO2
Conserved land (riparian, farmland, etc)

4. Reduced costs

Water treatment costs
Future costs
Source water protection
Maintenance costs
Service costs
Green infrastructure less expensive
Green infrastructure can protect
Recovery and clean-up costs
Energy cost consumption
Healthcare costs
More resilience

5. Improvement in community and social capital

Increased problem solving
Flexibility leads to ingenuity
Civic commitments teach stewardship
Understanding leads to science driven decision making
People working together
Stronger and healthier community
Harmony
Community involvement increases interconnectedness
Lower crime rates
People value similar things
Water valued more because of health recognition

Summary of benefits identified from JLOW October 30, 2019 Document for More.

Do you want to come up with a way to:

- Use more cost-effective practices to get same or better water quality

Or

- Pay less even if is not as effective

Need Actions that make the water quality better. NC DWR must understand what the ‘alternative practices’ could be and what metrics you can use to demonstrate effectiveness.

Benefits and Monitoring of Integrated Practices

Values	Goals	Actions	Desired Outcomes	Monitoring Metric

Google Form Here.

Benefits and Monitoring of Integrated Practices - hidden

Values

Clean Water, Soil, Air and more natural habitats

Goals

Watershed management that considers social, economic, and environmental outcomes

Actions

Urban investment in soil conservationists that focus on nutrients and carbon sequestration in soil health

Desired Outcomes

Soil health

Monitoring Metric

P-I, SOC, total investment, estimated nutrient loading

What are the relative outcomes of these practices? Can we make decisions based on evidence that a practice has a real positive impact on nutrients and a co-benefit?

Option A: Onsite SCM Bioretention with soil remediation requirement

- **Soil erosion control**
- Nutrient treatment

Option B: Land Conservation Easement

- **Soil erosion control**
- Improved habitat
- Reduced nutrient loading

Option C: Agricultural cattle fencing out of stream investment

- Local stream health
- Reduced nutrient loading
- **Soil erosion control**

Which Option is the best? If lbs. of N&P is not the compliance metric - what is the best way to decide which project to invest?

Example of a Project/Practice that would meet the Watershed Management Strategy and the Jordan Nutrient Rules?

1. Implementation of Soil Improvement on Developed Lands
2. Implementation of Impervious Surface Conversion on Developed Lands
3. Incentivize expanded organics recycling and composting operations – what does "incentivize" mean?
4. Incentivize practices which improve or enhance carbon sequestration on rural, forestry, and agricultural lands – what does "incentivize" mean?

- What can be implemented under a Jordan Nutrient Strategy
- What will likely have to be in addition to a nutrient reduction requirement in rule
- To be determined

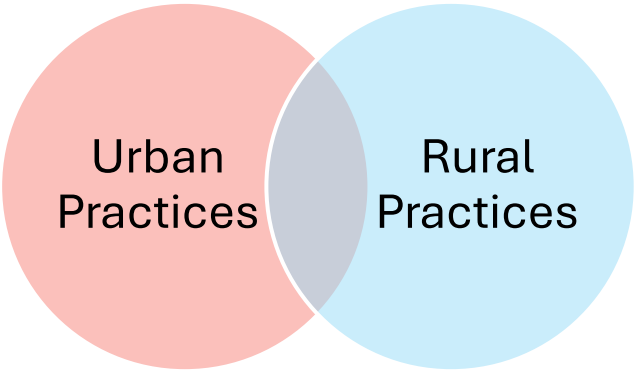
Urban and Rural Interactions

Urban-Rural Dynamics:

- Involve stakeholders **across spatial and sectoral boundaries** and require cross-functional collaborations to implement effective programs.
- Church et al. (2021) found that there is a **lack of easily identifiable examples of policy tools** that describe and discuss efforts to work across urban and agricultural sectors.
- The persistence of water quality problems lends to **tensions between communities**, with urban residents blaming water quality problems on agricultural communities, and vice versa.

Examples of Urban investment in Rural:

- Urban contributing 25% landowner match for ACSP contracts.
- Urban funding or supporting a county position for Soil & Water Conservation, Erosion & Sedimentation Control, Other.
- Urban assisting with ag land preservation easements on the exurban or suburban fringe.



Urban and Rural Interactions

Cross sector and cross jurisdiction collaboration

Google Doc Here

Concerns:	**Benefits:**
May be jurisdictional spending limitations Who gets credit Urban groups need to take care of their pollution	Can improve implementation of voluntary programs with multiple co-benefits Urban helping with main
Actions: Actions to foster this urban-rural collaboration and cross-jurisdiction collaboration -Check if jurisdictions funding options -Who checks this? -both get credit – get away from credit for pollutant reduction -Change the regs	

Ellie Rauh

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Thank you for your time and input.

We appreciate your time sending us your comments and any data/reports that can support decisions.

Option 2 Rule Outline:

Be in good standing with a compliance organization (214.14) – (and/or DWR spells out what the compliance organization must look like)

-Check the details in examples of other compliance groups (wastewater) and UNRBA IAIA!

Spend 50% of your budget on nutrient reducing practices (nutrient catalogue)

Spend 50% of your budget on alternative practices and programs that meet the following requirements:

Plan for establishing a representative metric that demonstrates nutrient and/or environmental health in these categories…
Plan for monitoring and reporting of representative metric

But how can you establish what their budget is? Especially when they are aiming to be cost effective and spend less than they would have under 'option 1'. If across all sectors, would be hard to justify what is an appropriate level of investment since there is no science to say that at x dollars you will see x positive impact.

-Review what types of compliance metrics would be best